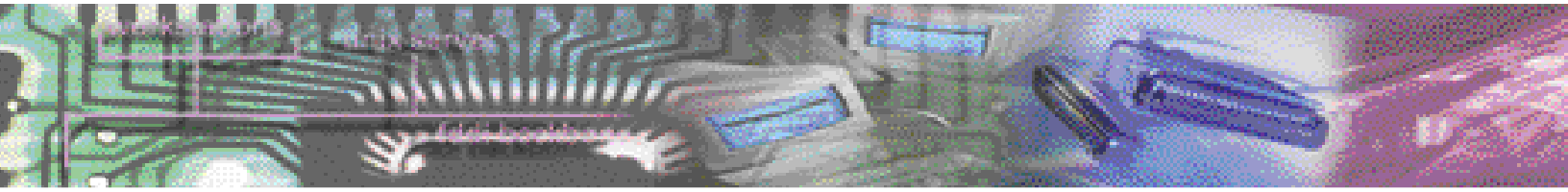


Powerware ® 5105 UPS

Product Snapshot

Rating:	450-1500 VA
Voltage:	110-127 Vac; 220/230/240 Vac
Frequency:	50 and 60 Hz
Configuration:	Cabinet and 1.5U Rack-mount

Recommended by Desktop Video Magazine (NetUPS) July 1997

Arabian Computer news

REDAKCYJNY ZNAK JAKOŚCI PC MAGAZINE PO POLSKU

Exide Electronics Net UPS 450 VA

Offering enhanced communication and voltage regulation capabilities, the Powerware 5105 (formerly the NetUPS) provides superior, cost-effective power protection for PCs, workstations, and small servers. The Powerware 5105 is available in cabinet models as well as a rack-mount (1.5U) version, which incorporates the same features while conserving valuable space in telecommunication racks.

The Powerware 5105 utilizes Powerware's Advanced Battery Management (ABM™), which doubles battery service life, optimizes recharge time, and provides up to 60 days advanced notification when the batteries are approaching the end of their useful life. When the battery service alarm warns that the end of useful battery life is near, you have the option of replacing the entire unit under the Triple Power Warranty, or hot-swapping the batteries without powering down the connected load.

To preserve data integrity, the Powerware 5105 is bundled with LanSafe III/ FailSafe III power management software, which provides extensive control and monitoring capabilities in both standalone and networked configurations. In addition, all models are manufactured to ISO 9001 standards and meet or exceed worldwide specifications for safety, performance, and excellence.

Features

- Advanced Battery Management (ABM™) doubles battery service life
- 1.5U (2.6") rack-mount model conserves space in telecommunication racks
- Buck and Double Boost voltage regulation ensures clean power
- Bundled with LanSafe III and FailSafe III power management software to ensure data integrity
- Hot-Swappable batteries simplify service
- Load Segments enable scheduled shutdowns and maximize run time

Exclusive Triple Power Warranty
(U.S. and Canada)

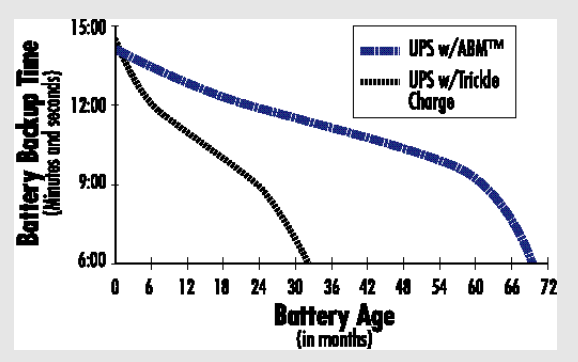
- 10-Year Pro-Rated Warranty
- 60-Day Money Back Guarantee
- $25,000 Load Protection Guarantee

POWERWARE®
POWERING THE WORLD

Technical Specifications [1]

Advanced Battery Management (ABM™) Technology Doubles Battery Service Life

The lead-acid batteries typically used in a UPS are considered viable as long as they can maintain backup times of at least half that of new batteries. The illustration to the right shows that batteries that are constantly trickle charged (as are virtually all other UPS batteries on the market today) reach the end of their useful life in less than half the time of batteries charged using ABM. ABM uses a patented three-stage charging technique that not only doubles battery service life, but also optimizes battery recharge time and provides up to a 60-day advanced notification of pending end of useful battery life.



Data based upon tests performed by an independent battery manufacturer

Electrical Input

Voltage	120 and 230 Vac nominal; see Model Selection Guide for user-selectable voltages
Online Voltage Range	-30%, +20% for nominal voltages; user-selectable extended range of -35%, +20%
Nominal Input Frequency	50/60 Hz; auto-selection
Connections	See Model Selection Guide

Electrical Output

Power Levels	450, 700, 1000, and 1500 VA
Online Efficiency	96%
Online Regulation	-10%, +6%; within Computer Business Equipment Manufacturers Association's Guidelines (-15%, +10% using extended range)
On Battery Regulation	±5% RMS
Voltage Wave Shape (on battery)	Quasi-sine wave
No Load Sleep Mode	Outputs are turned off if <5% load is detected (selectable)
Connections	See Model Selection Guide
Interconnecting Cords(cabinet)	2 ea. IEC-320 (10 A); 230 Vac models only
Interconnecting Cords(rack)	4 ea. IEC-320 (10 A)
Backup Time	See Battery Run Times table
Battery Charging	<4 hrs to 90% usable capacity
Battery Type	Sealed, maintenance-free lead-acid
Start-On-Battery	Startup with UPS batteries in absence of utility power

Indicators and Controls

Serial Communication	Intelligent serial communication to provide alarms with history, measured parameters, selftest, and many other features.
Front Panel Interface LEDs	Ergonomic indicators including wiring fault, battery service, communication operation, system normal; bar graphs for input level, battery charge level, % load
Digital Input/Output	Remote On/Off

Physical

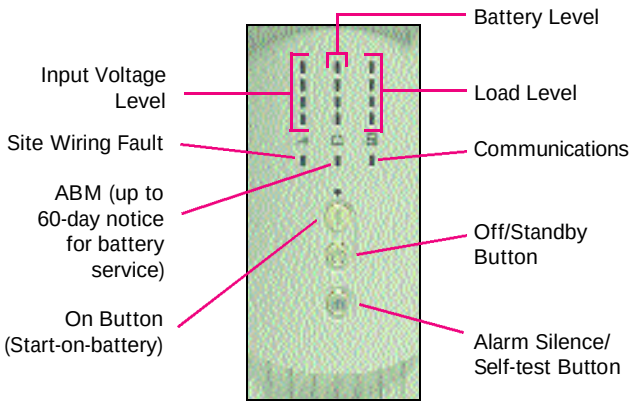
Dimensions and Weight	See Model Selection Guide
Surge Suppression	High energy 6500 peak Amp
Audible Noise	Less than 45 dB
Operating Temp	0°C–40°C (32°F–104°F) UL tested at 25°C (77°F)
Operating Humidity	5 to 95% non-condensing
Operating Altitude	Up to 10,000 feet above sea level
Conformance	IEEE 446, NEMA PE 1;
Standards	ANSI C62.41; FCC Class A and B, EN50091-2 Class B, NSTA and others
Safety Standards	UL 1778, CSA C22.2, and European standard EN 50091-1
Network Transient Protector	In and out RJ11 jack for telephone/modem protection (120 Vac models only) or RJ45 for 10Base-T network cable; UL497A tested

Power Protection

Series 5 Protection	Protection against power failures, power surges, power sags, brownouts, line noise, and a degree of protection against other power problems

1. Due to continuing product improvement programs, specifications are subject to change without notice.

Front Panel Display

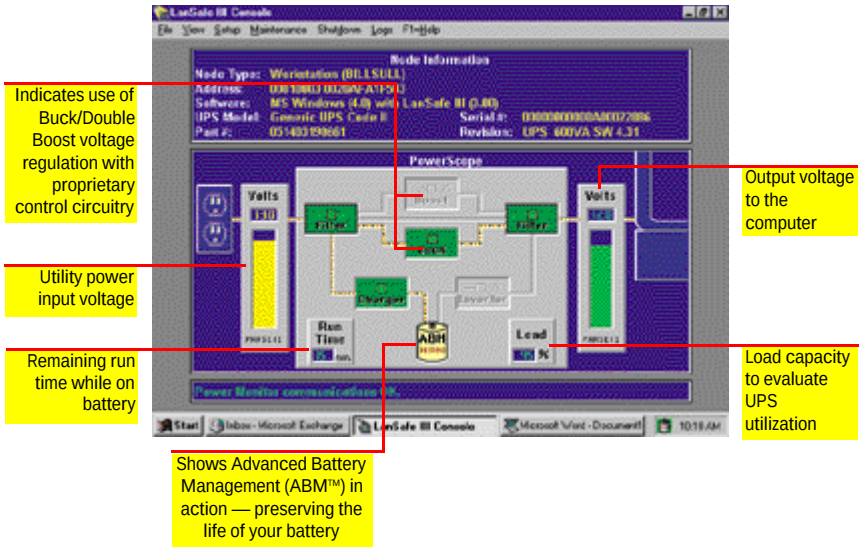


Powerware 5 105 Overview

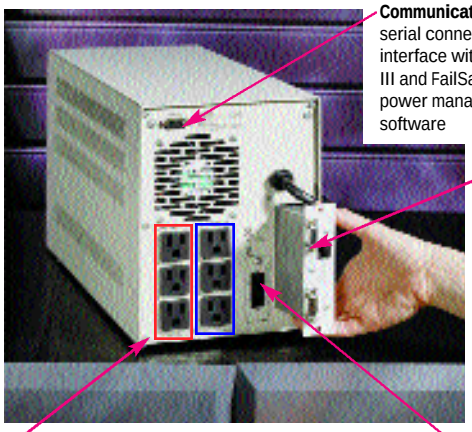
Buck/Double Boost Voltage Regulation

Powerware's Buck/Double Boost voltage regulation ensures consistent input voltage to your critical load. If the input voltage is too high, the Powerware 5105 bucks the voltage instantaneously (demonstrated in the LanSafe III and FailSafe III PowerScope view below) or boosts the voltage if it is too low.

The Powerware 5105 has one of the widest input voltage windows and tightest output regulations available. This innovative mechanism corrects input voltage variations as low as -35% or as high as +20% of nominal voltage.



Rear Panel Display (1000 and 1500 VA)



Communication Port: serial connection for interface with LanSafe III and FailSafe III power management software

PowerComm™ Installable Options (1000 & 1500 VA models only):

- **Connect UPS SL** card adds direct control and monitoring capabilities in SNMP-based networks
- **PowerPlexer** card provides communication ports for up to 3 computers attached to different Load Segments on the UPS
- **MultiUPS** card provides communication ports for up to 3 UPSs connected to a single network device
- **USBInterface Unit** allows you to connect the UPS to Windows 98 computers

Load Segments: receptacles are divided into Load Segments that are controlled independently with LanSafe III and FailSafe III power management software. To preserve battery power during a power outage for more critical equipment connected to **LoadSegment 1**, shut down **Load Segment 2** supporting less critical equipment (1000 & 1500 VA models only)

Network Transient Protector: isolates your modem, fax machine, and other electronic equipment from "back door" power surges (230 Vac models accomodate one 10Base-T network cable)

Power Management Software

LanSafe III/FailSafe III power management software is bundled with all Powerware 5105 models. During extended power failures, Powerware's exclusive SafetyNet™ sequential shutdown offers network administrators automatic orderly shutdown of all network devices, including multiple servers and workstations.

Features

- Preserve data integrity system-wide with SafetyNet™ prioritized, sequential shutdown of all network devices
- Reduce cost per device for power protection with UPS Groups
- Receive system-wide control via cross-platform functionality and support for other manufacturers' UPSs
- Test networked UPSs from one node
- Determine overall operating environment with extensive graphical displays
- Stay informed of power problems by pager and e-mail
- Analyze power conditions with voltage logging

Operating Systems

- FailSafe III Standalone Solutions:
  Windows 95/98, OS/2, Windows 3.x, and Windows NT
- LanSafe III Network Solutions:
  Windows 95/98, OS/2, UNIX, Novell NetWare, Windows NT, and Macintosh

Powerware 5 105 Model Selection Guide

Model Number	Power Out (VA/Watt)	Input Connection	Output Connections	Maximum Output Current (Amp)	Dimensions WxHxD (in/cm)	Unit Weight (lb/kg)	Shipping Weight (lb/kg)
120 Vac[1]; 50/60 Hz							
PW5105 450	450/280	5-15P	(4) 5-15R	3.7	4.6 x 6.4 x 14.8/11.7 x 16.3 x 37.6	22/10	26/11.8
PW5105 700	700/420	5-15P	(4) 5-15R	5.8	4.6 x 6.4 x 14.8/11.7 x 16.3 x 37.6	24/11	29/13.2
PW5105 700 RM[2]	700/420	5-15P (detachable)	(4) IEC-320	5.8	17.25 x 2.6 x 15.25/44.8 x 6.6 x 38.7[3]	29/13	33/15.0
PW5105 1000	1000/670	5-15P	(6) 5-15R[4]	8.3	7.0 x 8.8 x 17.1/17.8 x 22.4 x 43.4	46/21	51/23.1
PW5105 1500	1500/960	5-15P	(6) 5-15R[4]	12.0	7.0 x 8.8 x 17.1/17.8 x 22.4 x 43.4	55/25	62/28.1
230 Vac[5]; 50/60 Hz							
PW5105 450i	450/280	IEC-320, 10 A	(4) IEC-320	1.9	4.6 x 6.4 x 14.8/11.7 x 16.3 x 37.6	22/10	26/11.8
PW5105 700i	700/420	IEC-320, 10 A	(4) IEC-320	3.4	4.6 x 6.4 x 14.8/11.7 x 16.3 x 37.6	24/11	29/13.2
PW5105 700i RM[2]	700/420	IEC-320, 10 A	(4) IEC-320	3.4	17.25 x 2.6 x 15.25/43.8 x 6.6 x 38.7[3]	29/13	33/15.0
PW5105 1000i	1000/670	IEC-320, 10 A	(6) IEC-320[4]	4.4	7.0 x 8.8 x 17.1/17.8 x 22.4 x 43.4	46/21	51/23.1
PW5105 1500i	1500/960	IEC-320, 10 A	(6) IEC-320[4]	6.5	7.0 x 8.8 x 17.1/17.8 x 22.4 x 43.4	55/25	62/28.1

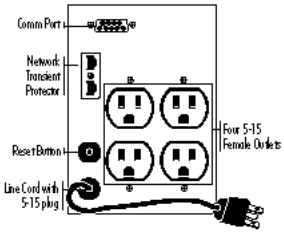
1. User selectable for 110, 120, or 127 Vac. With 110 V selected, N. American units can operate at 50 Hz. 2. Rack-mount models. 3. 19" wide front panel with a 17.25" wide chassis. 4. Divided into 2 Load Segments. 450 & 700 VA models have one Load Segment. 5. User-selectable for 220, 230, or 240 Vac.

Battery Run Times (in minutes)

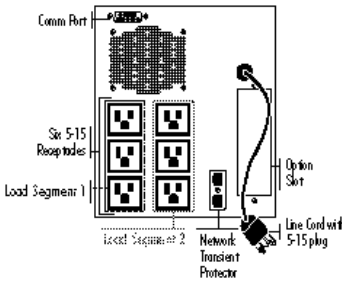
Applications	Load (VA/Watts)	PW5105 450(i)	PW5105 700 (RM/i)	PW5105 1000(i)	PW5105 1500(i)
External Hard Drive	100 VA/74 W	46	63	131	224
80x86 or 680x0 PC, Hub	250 VA/185 W	14	24	37	95
Intelligent Terminal, POS	300 VA/222 W	11	18	30	75
Router or Tape Drive	450 VA/333 W	5	12	19	38
Workstation w/19" Monitor	600 VA/444 W		7	14	30
File Server w/Monitor	700 VA/519 W		5	11	26
Small Server	850 VA/630 W			8	21
RISC Workstation	1000 VA/741 W			7	16
Super Workstations	1250 VA/926 W				12
Small Tower Mini	1500 VA/1111 W				8

This guide provides typical application information. Battery times are approximate and may vary with equipment, configuration, disk access, battery age, temperature, etc.

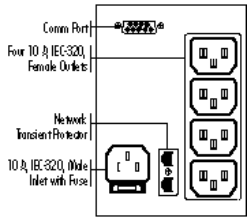
Rear Panels



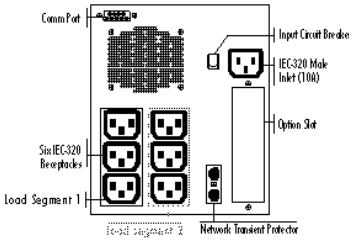
PW5105 450/700



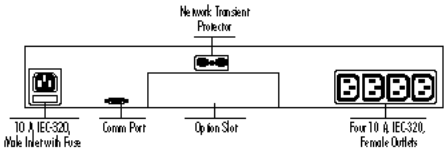
PW5105 1000/1500



PW5105 450i/700i



PW5105 1000i/1500i



PW5105 700(i) RM

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Revision: NUS06FXA 9/99
Reprint: RTP 9/99